

FOOD SERVICE SAFETY FACTS

Center for Food Safety and Applied Nutrition, U.S. Food and Drug Administration



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Assuring the Safety of Eggs and Egg Dishes Made From Raw, Shell Eggs

Fresh eggs may contain bacteria called *Salmonella Enteritidis* (SE) that can cause intestinal infections. Most healthy people recover from these infections within 4-7 days, but they can lead to severe and even fatal illness, especially for those most vulnerable to foodborne disease— young children, the elderly, and persons with immune systems weakened by health problems. Illness from eggs—or foods that contain them—can be prevented by proper preparation procedures and cooking to safe temperatures.

Receiving Eggs and Egg Products

- Shell eggs should be received clean and sound.
- A new FDA rule requires that by June 4, 2001 eggs which have not been treated to destroy *Salmonella* be refrigerated at **7°C (45°F) or lower** while stored or displayed at commercial establishments (supermarkets, restaurants, delis, caterers, vending operations, roadside stands, hospitals, nursing homes and schools). Refrigeration at an ambient temperature of 45 degrees fahrenheit or cooler slows the growth and development of SE.
- The rule also requires that by Sept. 4, 2001 untreated fresh eggs sold to consumers for preparation at home carry this safe handling statement—

Safe Handling Instructions: To prevent illness from bacteria: Keep eggs refrigerated, cook eggs until yolks are firm, and cook foods containing eggs thoroughly

- Liquid, frozen and dry eggs and egg products should be accepted only if pasteurized.

Preventing Contamination

- Wash hands with hot, soapy water before and after they come in contact with eggs and egg-containing foods. Do not touch ready-to-eat egg foods with bare hands—use clean utensils or single-use gloves.
- Wash, rinse and sanitize utensils, equipment and work surfaces after preparing eggs or egg-containing foods.
- Keep cooked ready-to-eat eggs and egg-containing foods separate from raw animal foods during storage, preparation, holding or display.
- Pasteurized eggs or egg products should be substituted for raw shell eggs in preparing such foods as Caesar salad, hollandaise or Béarnaise sauce, mayonnaise, eggnog, ice cream, and egg-fortified beverages that are *not* thoroughly cooked. (See minimum cooking times and temperatures below.)

Cooking and Serving

- Shell eggs that are broken for immediate preparation and service should be cooked to heat all parts of the food to a temperature of **63°C (145°F) for 15 seconds**.
- Foods prepared with raw shell eggs that are *not* broken for immediate preparation and service should be cooked to heat all parts of the food to a temperature of **68°C (155°F) for 15 seconds**.
- Eggs and egg-containing foods cooked in a microwave oven should be: covered to retain surface moisture; rotated or stirred throughout or midway through cooking to promote even heat distribution; heated to a

temperature of at least **74°C (165°F)**, and allowed to stand covered for **2 minutes** before service.

Cooling

- Once cooked, eggs and egg-containing foods should be cooled from **60°C (140°F) to 21°C (70°F) within 2 hours** and from **21°C (70°F) to 5°C (41°F) within an additional 4 hours**.

Hot or Cold Holding

- If cooked eggs and egg-containing foods are held hot, e.g., on a steam table, they should be held at a temperature of **60°C (140°F) or above**.
- For cold holding, maintain eggs and egg foods at **5°C (41°F) or below**.

Consumer Advisory

Consumers should be informed of the significantly increased health risk—especially to young children, older adults and individuals whose immune systems are compromised by health problems—when eggs are eaten in a raw or undercooked form. Foods such as scrambled or fried eggs, French toast and omelets are frequently undercooked. Consumers can be so informed by brochures, advisories on signs or menus, table tents or other effective written means

Added Safeguards for Highly Susceptible Populations

- Establishments that serve highly susceptible populations (young children, elderly persons and individuals with weakened immune systems), such as day care centers, elementary schools, nursing homes and hospitals, should take additional precautions. Due to factors such as age, medications, compromised or immature immune systems, and various health conditions, these populations are especially vulnerable to foodborne illness.
- In NO case should people in such facilities be served soft-cooked eggs, soufflés or meringues that are made from shell eggs.
- As a general rule, pasteurized eggs should be used in any recipe that calls for combining more than one egg ("pooling") and for any recipe, preparation or serving procedure that involves holding eggs or egg-containing foods before or after cooking.
- To add an extra margin of safety, in addition to all of the above precautions, buyers can specify that suppliers provide eggs produced only from flocks managed under an SE control program that is recognized by an animal health regulatory agency.

TO ACCESS THE FOOD CODE AND OTHER INFORMATION ABOUT HANDLING EGGS AND OTHER FOODS SAFELY IN COMMERCIAL AND INSTITUTIONAL FOOD SERVICE, LOG ON TO THE FDA'S CENTER FOR FOOD SAFETY AND APPLIED NUTRITION WEB SITE

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